

PATENT



ATTORNEY DOCKET NO. 114596-10-4017

#16/EDT  
4-1-04  
Hall

Serial No.: 09/334,530  
Applicant: Korbin S. Van Dyke, et al.  
Title: PROFILING EXECUTION OF COMPUTER PROGRAMS  
Filed: June 16, 1999  
Art Unit: 2122  
Examiner: Chameli Das  
Atty Docket: 114596-10-4017  
Customer No. 38492

Confirmation No.: 5424

I certify that this correspondence, along with any documents referred to therein, is being deposited with the United States Postal Service on March 10, 2004 as First Class Mail in an envelope with sufficient postage addressed to Art Unit 2122, Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.

*DM E [Signature]*

**PETITION TO REDATE OFFICE ACTION,  
OR IN THE ALTERNATIVE, FOR EXTENSION OF TIME**

**RECEIVED**

MAR 16 2004

Art Unit 2122  
Commissioner for Patents  
P.O. Box 1450  
Alexandria, VA 22313-1450

Technology Center 2100

Applicant petitions to have the current Office Action redated to January 28, 2004. The original Office Action was mailed to an invalid address, and Applicant promptly and repeatedly requested a replacement. No replacement was neither sent nor received until January 28, 2004. Applicant requests that the current Office Action be so redated.

**BACKGROUND**

Applicant filed at Change of Correspondence Address on October 13, 2003. The address on this Change of Correspondence Address was entered incorrectly into PALM.

By way of a status check phone call in late November, Applicant learned of the issuance of an Office Action on or about November 16, 2003. Applicant made several phone calls in late November and early December 2003 requesting a replacement. In a phone call in early December, it was ascertained that the Office Action was mailed to "787 Seventy Ave.," not "787 Seventh Ave."

A formal written request for remailing was filed December 8, 2003.

By several phone calls to the Examiner and LIE Deborah Wyatt in late December 2003 and early January 2004, Applicant requested a replacement or remailing of the Office Action.

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1334309.1

S/N 09/334,530

03/15/2004 JBR/LNHN 00000097 232405 09334530

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No replacement Office Action was received in response to any of these requests.

By phone call on or about January 28, 2004, Examiner Das acknowledged that even though PTO personnel had recognized that the Office Action had been mailed to an invalid address, no replacement had been mailed in response to these requests.

A replacement copy of the Office Action was FAXed on January 28, 2004. The copy received has no mailing cover page, and bears no other mailing date, only a date indicating that it was written on November 12, 2003. (See attachment).

### REMARKS

MPEP § 707.13 provides that when a paper is lost in mailing and remailed, "the period running against the application begins with the date of remailing."

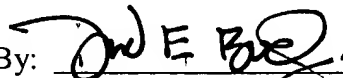
The only mailing or transmission date on any paper received from the PTO is January 28, 2004. Applicant requests that the Office Action be redated to that date, and that the enclosed Response thereto be entered as timely.

In the alternative, Applicant petitions for a one-month extension of time. In this alternative, kindly charge the he petition fee of \$ 110.00 to Deposit Account No. 23-2405, Order No. 114596-10-4017.

Respectfully submitted,

WILLKIE FARR & GALLAGHER, LLP

Dated: March 10, 2004

By: 

David E. Boundy  
Registration No. 36,461

WILLKIE FARR & GALLAGHER, LLP  
787 Seventh Ave.  
New York, New York 10019  
(212) 728-8000  
(212) 728-8111 Fax

From:

Chambliss C. Dan

Primary Patent Examiner

A.U. 2122

703-305-1339



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Technology Center 2100

Re: Office action of the application

09/334,530

To

Mr. David Boudry

212-728-8757

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1. This action is in response to the reconsideration filed on 9/11/03.

***Rejections - 35 USC § 112***

2. Claims 1-45 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regard as the invention.

Claims 1 and 24 recite the limitation regarding the profiling occurs without any software intervention. In the present application, only the abstract and the summary state that "without any software intervention". There is no description in the detailed description section that how the profiled information is recorded under control of hardware of the computer without any software intervention.

The rejection of the base claims are necessarily incorporated into their dependent claims.

***Claim Rejections - 35 USC § 103***

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1 and 24 are rejected under 35 U.S.C. 103(a) as being unpatentable over O'Donnell (US 6,374,369) and further in view of the article "Using Branch Handling Hardware to Support Profile-Driven Optimization", by Conte, ACM, 1994.

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**As per claim 1, O'Donnell discloses:**

- *while executing a program on a computer, detecting the occurrence of profileable events* (Abstract, lines 1-16, column 4, lines 21-25)
- *occurring in the instruction pipeline* (column 11, lines 38-40, col 12 lines 22-28, col 14 lines 45-48)
- *directing the instruction pipeline to record profile information describing the profileable events essentially concurrently with the occurrence of the profileable events* (column 5, lines 19-22, column 6, lines 46-52, abstract lines 1-16).

*O'Donnell discloses detecting and recording occurring under control of hardware of the computer with software intervention* (column 1, lines 8-12, Abstract lines 4-16, column 9, lines 38-40, column 7, lines 38-42, column 8, lines 1-4).

**O'Donnell does not specifically disclose that recording the profile without software intervention. However, Conte in his article discloses recording the profile in hardware without software intervention** (Conte, page 12, Abstract, and page 14, section 2.3). Therefore, it would have been obvious to one of the ordinary skill in the art at the time of invention was made to incorporate the teaching of Conte into the method of O'Donnell. The modification would be obvious because one of the ordinary skill in the art would be motivated to produce high accuracy with small slowdown in execution and high performance profiling system.

**As per claim 24, O'Donnell discloses:**

- *computer hardware comprising an instruction pipeline* (Abstract, lines 1-16, column 6, lines 45-60) an arithmetic unit (Fig 9), where "510" and "530" show the loop counting and timer count inherently including an arithmetic unit is the hardware system as claimed

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- execute instructions received from a memory and profile circuitry (Abstract, lines 3-12, column 4, lines 38-44)
- profile circuitry under hardware control, the instruction pipeline interconnected to detect the occurrence of profileable events as claimed ( column 1, lines 8-12, Abstract lines 4-16, column 9, lines 38-40, column 7, lines 38-42, column 8, lines 1-4),

O'Donnell does not specifically disclose that recording the profile without software intervention. However, Conte in his article discloses recording the profile in hardware without software intervention (Conte, page 12, Abstract, and page 14, section 2.3). Therefore, it would have been obvious to one of the ordinary skill in the art at the time of invention was made to incorporate the teaching of Conte into the method of O'Donnell. The modification would be obvious because one of the ordinary skill in the art would be motivated to produce high accuracy with small slowdown in execution and high performance profiling system.

4. Claim 2 is rejected under 35 U.S.C. 103(a) as being unpatentable over O'Donnell (US 6,374,369) and further in view of the article "Using Branch Handling Hardware to Support Profile-Driven Optimization", by Conte, ACM, 1994 and Lewchuck, US 6,047,363

*As per claim 2, O'Donnell discloses:*

- *recorded profileable events indicates the address during the profiled execution* (column 15, lines 17-62),

O'Donnell does not specifically disclose the last byte of instruction. However, Lewchuck discloses the last of the instruction (Lewchuck, col 15 lines 15-20). The modification would

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be obvious because one of the ordinary skill in the art would be motivated to record the profiled events efficiently.

*For claim 5 and 27, O'Donnell discloses:*

- the profile information is recorded and stored (Abstract, col 6 lines 10-35, and col 6 lines 48-52).

*O'Donnell does not specifically disclose recorded into general register and without software intervention. However, Conte discloses to record the profile information into the general register without any software intervention (Conte, page 15, section 3.2, page 12, Abstract, page 14, section 2.3 and section 3). The modification would be obvious because one of the ordinary skill in the art would be motivated to record the profiled events efficiently.*

For the rest of the claims see the rejection of the previous office action including the rejection of claims 1 and 24 above.

***Allowable Subject Matter***

5. Claims 38-40 would be allowable if rewritten to overcome the rejection(s) under 35 U.S.C. 112, second paragraph, set forth in this Office action and to include all of the limitations of the base claim and any intervening claims.
6. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Chameli Das whose telephone number is 703-305-1339. The examiner can normally be reached on Monday-Friday from 7:00 A.M. to 4:00 P.M.

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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor Tuan Dam can be reached at 703-305-4552. The fax number for this group are:

(703) 872-9306 (official fax), (703) 746-7240 (non-official/draft), (703) 746-7238 (after final).

An inquiry of general nature or relating to the status of this application or proceeding should be directed to the group receptionist whose telephone number is 703-305-9600.

*Chameli C. Das*  
Chameli C. Das

Primary Patent Examiner

Art Unit 2122

11/16/03



PATENT

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IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

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CERTIFICATE OF MAILING (37 C.F.R. § 1.8a)

Art Unit 2122  
Commissioner for Patents  
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Alexandria, VA 22313-1450

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I hereby certify that the attached

- Return postcard
- This Certificate of Mailing
- Petition to Redate Office Action, or Alternatively, for Extension of Time, with Exhibit
- Response to Office Action, with Exhibit A
- Preliminary Amendment of October 31, 2000
- Information Disclosure Statement and Form PTO-1449

(along with any paper(s) referred to as being attached or enclosed) are being deposited with the United States Postal Service on the date shown below with sufficient postage as first-class mail in an envelope addressed to Art Unit 2122, Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.

Respectfully submitted,

WILLKIE FARR & GALLAGHER, LLP

Dated: March 10, 2004

By: David E. Boundy

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